

VHF POWER PENTODE

56/8

MINIATURE TYPE

GENERAL DATA
Electrical:
Filament, Coated:
Filament Arrangement Series* Parallel**
Voltage 6.0 ± 10% 3.0 ± 10% ac or dc volts Current 0.23 0.46 amp Direct Interelectrode Capacitances: OGrid No.1 to Plate 0.24 μμf Input μμf
Input
O With no external shield.
Mechanical:
Mounting Position Vertical, or Horizontal with pins No.1 & No.5 in a horizontal plane Maximum Overall Length
Pin 1 - Filament (-) Pin 2 - Plate Pin 3 - Grid No. 2 Pin 4 - Grid No. 3, Int. Shield Pin 5 - Filament Mid-Tap Pin 6 - Grid No. 1 Pin 7 - Filament (+)
AF POWER AMPLIFIER & MODULATOR—Class A1
Maximum ICAS ** Ratings, Absolute Values;
DC PLATE VOLTAGE
,
Filament Arrangement Series Parallel 250 volts
DC Grid-No.3 Voltage
DC Grid-No.2 Voltage 75 75 volts DC Grid-No.1 (Control-
Grid) Voltage8 -8 volts Peak AF Grid-No.1-to-
Grid-No.1 Voltage 8 8 volts
*,**, ** ; See next page.





VHF POWER PENTODE

Max.—Signal DC Plate Current . 17.5	Zero-Signal DC Plate Current			
Vax.—Signal DC Plate Current . 17.5 20.5 ma Zero—Signal DC Grid—No.2 Current 1.5 2.0 ma Max.—Signal DC Grid—No.2 Current 3.5 4.5 ma Transconductance	Zero-Signal DC Plate Current	1.0	10	
Zero-Signal DC Grid-No.2 Current 1.5 2.0 ma MaxSignal DC Grid-No.2 Current 3.5 4.5 ma Transconductance				
Max.—Signal DC Grid—No.2 Current 3.5 4.5 ma Transconductance				
Max.—Signal DC Grid—No.2 Current 3.5 4.5 ma Transconductance	Zero-Signal DC Grid-No.2 Current	1.5		ma
Transconductance	May Signal DC Grid-No 2 Current	3.5	4.5	ma
Effective Load Resistance {plate to plate}. 12000 12000 ohms Total Harmonic Distortion. 10 10 % Max.—Signal Power Output 1.2 1.4 watts Circuit Values: Grid—No.1—Circuit Resistance . { 5000 min. ohms 100000 max. ohms RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy□□ and RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS® Ratings, Absolute Values: DC PLATE VOLTAGE . 300 max. volts DC GRID—No.2 (SCREEN) VOLTAGE. 125 max. volts DC GRID—No.1 (CONTROL—GRID) VOLTAGE125 max. volts DC GRID—No.1 CURRENT . 30 max. ma DC GRID—No.1 CURRENT . 3 max. watts GRID—No.2 INPUT 7.5 max. watts GRID—No.2 INPUT 2 max. watts PLATE DISSIPATION. 5 max. watts Typical Operation:				umhos
(plate to plate). 12000 12000 ohms Total Harmonic Distortion. 10 10 % Max.—Signal Power Output . 1.2 1.4 watts Circuit Values: Grid—No.1—Circuit Resistance		2000	2000	μιιι103
Total Harmonic Distortion. 10 10 10	Effective Load Resistance			
Total Harmonic Distortion. 10 10	(plate to plate)	12000	12000	ohms
Max.—Signal Power Output . 1.2 1.4 watts Circuit Values: Grid—No.1—Circuit Resistance . { 5000 min. ohms 100000 max. ohms 2 mand 2 m		10	10	%
Circuit Values: Grid-No.1-Circuit Resistance			1 1	watts
Grid-No.1-Circuit Resistance	MaxSignal Power Output	1.2	1.4	"atts
Grid-No.1-Circuit Resistance	A			
RF POWER AMPLIFIER & OSCILLATOR—Class C TelegraphyDD and RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS®® Ratings, Absolute Values: DC PLATE VOLTAGE	Circuit values:	(E000 = in	ohme
RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy DD and RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS®® Ratings, Absolute Values: DC PLATE VOLTAGE	Grid-No.1-Circuit Resistance			
And RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS®® Ratings, Absolute Values: DC PLATE VOLTAGE	3,10 1,012 011 021 021	l	100000 max.	onms
And RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS®® Ratings, Absolute Values: DC PLATE VOLTAGE				
And RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS®® Ratings, Absolute Values: DC PLATE VOLTAGE	DE DOWED AMPLIFIED & OSCILLATOR	Class	C. Telegraphy	00
RF POWER AMPLIFIER—Class C FM Telephony Maximum ICAS® Ratings, Absolute Values: DC PLATE VOLTAGE	KE FOWER AMPLITIEN & OSCILLATOR	01000	o reregreping	
Maximum ICAS® Ratings, Absolute Values: DC PLATE VOLTAGE		0 54 7	1	
DC PLATE VOLTAGE	RF POWER AMPLIFIER—Class	CEMI	erephony	
DC PLATE VOLTAGE	Marinum ACACOO Dations Absolute Va	1 1105		
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	Maximum ICAS Natings, Absolute 12			
DC GRID—No.2 (SCREEN) VOLTAGE	DC PLATE VOLTAGE		_300 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE125 max. volts DC PLATE CURRENT . 30 max. ma DC GRID-No.1 CURRENT . 30 max. ma DC GRID-No.1 CURRENT . 7.5 max. watts GRID-No.2 INPUT . 2 max. watts PLATE INPUT . 2 max. watts PLATE DISSIPATION . 5 max. watts Value . 300 volts of the process of the proc			125 max.	volts
DC PLATE CURRENT				
DC GRID—No.1 CURRENT				
PLATE INPUT	DC PLATE CURRENT			
PLATE INPUT	DC GRID-No.1 CURRENT		3 max.	ma
GRID—No.2 INPUT			7.5 max.	watts
Typical Operation: Variable				watts
Typical Operation: Up to At 40 Mc 80 Mc	GALLE AND THE STATE OF THE STAT		_	
DC Plate Voltage	PLATE DISSIPATION		o max.	watts
DC Plate Voltage	1		44	
DC Plate Voltage	Typical Operation:	-,		
DC Grid-No.2 Voltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage DC Grid-No.1 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current Driving Power (Approx.) DC Grid-No.1 Current DC G		40 Mc	80 Mc	
DC Grid-No.2 Voltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage DC Grid-No.1 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current Driving Power (Approx.) DC Grid-No.1 Current DC G	DO D1	200	300	1.
DC Grid-No.2 Voltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current (Approx.) DC Grid-No.1 Current (Approx.) DC Grid-No.1 Current D				VOLTS
DC Grid—No.2 Voltage	DC Plate Voltage			
DC Grid-No.1 Voltage	DC Grid-No.3 Voltage • • • • • • •	0	0	volts
DC Grid-No.1 Voltage	DC Grid-No.3 Võltage®	0 75	0 75	volts volts
DC Grid-No.1 Voltage 30000 30000 ohms	DC Grid-No.3 Võltage®	0 75	0 75	volts volts
Peak RF Grid-No.1 Voltage	DC Grid-No.3 Võltage®	0 75 32000	0 75 32000	volts volts
Peak RF Grid—No.1 Voltage	DC Grid-No.3 Vŏltage [®] DC Grid-No.2 Voltage ^D	0 75 32000 -45	0 75 32000 –45	volts volts ohms volts
DC Plate Current	DC Grid-No.3 Vŏltage [®] DC Grid-No.2 Voltage ^D	0 75 32000 -45 30000	0 75 32000 –45 30000	volts volts ohms volts ohms
DC Plate Current	DC Grid-No.3 Vŏltage [®] DC Grid-No.2 Voltage [©] { DC Grid-No.1 Voltage ^{®®}	0 75 32000 -45 30000 1400	0 75 32000 -45 30000 1400	volts volts ohms volts ohms ohms
DC Grid-No.2 Current	DC Grid-No.3 Vŏltage [®] DC Grid-No.2 Voltage [©] { DC Grid-No.1 Voltage ^{®®}	0 75 32000 -45 30000 1400 65	0 75 32000 -45 30000 1400 65	volts volts ohms volts ohms
DC Grid-No.1 Current (Approx.) . 1.5 ma Driving Power (Approx.) 0.2 0.3 watt Power Output (Approx.) 5.4 5.2 watts Circuit Values: Grid-No.1-Circuit Resistance	DC Grid-No.3 Vŏltage®	0 75 32000 -45 30000 1400 65	0 75 32000 -45 30000 1400 65	volts volts ohms volts ohms ohms
Driving Power (Approx.) 0.2 0.3 watte Power Output (Approx.) ♦ 5.4 5.2 watte Circuit Values: Grid-No.1-Circuit Resistance { 5000 min. ohms 100000 max. ohms for 80 Mc.	DC Grid-No.3 Vŏltage [®]	0 75 32000 -45 30000 1400 65 25	0 75 32000 -45 30000 1400 65 25	volts volts ohms volts ohms ohms volts
Power Output (Approx.) ♦ 5.4 5.2 watts Circuit Values: Grid—No.1—Circuit Resistance { 5000 min. ohms 100000 max. ohms 100000 max. ohms for 80 Mc.	DC Grid-No.3 Vŏltage [®]	0 75 32000 -45 30000 1400 65 25	0 75 32000 -45 30000 1400 65 25	volts volts ohms volts ohms volts ma
Power Output (Approx.)	DC Grid-No.3 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current (Approx.)	0 75 32000 -45 30000 1400 65 25 7	0 75 32000 -45 30000 1400 65 25 7	volts ohms volts ohms ohms volts ma ma
Circuit Values: Grid-No.1Circuit Resistance { 5000 min. ohms 100000 max. ohms 100000 max. ohms 100000 max. ohms for 80 Mc.	DC Grid-No.3 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current (Approx.)	0 75 32000 -45 30000 1400 65 25 7	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3	volts ohms volts ohms ohms volts ma ma watt
Grid-No.1-Circuit Resistance { 5000 min. ohms 100000 max. ohms was a sproximately 5.0 watts for 40 Mc and 4.5 watts for 80 Mc.	DC Grid-No.3 Vŏltage®	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3	volts ohms volts ohms ohms volts ma ma
Grid-No.1-Circuit Resistance { 5000 min. ohms 100000 max. ohms was a sproximately 5.0 watts for 40 Mc and 4.5 watts for 80 Mc.	DC Grid-No.3 Vŏltage®	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3	volts ohms volts ohms ohms volts ma ma watt
Useful power output is approximately 5.0 watts for 40 Mc and 4.5 watts for 80 Mc.	DC Grid-No.3 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.2 Current (Approx.) Driving Power (Approx.) Power Output (Approx.)	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3	volts ohms volts ohms ohms volts ma ma watt
■ Useful power output is approximately 5.0 watts for 40 Mc and 4.5 watts for 80 Mc.	DC Grid-No.3 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.2 Current (Approx.) Driving Power (Approx.) Power Output (Approx.)	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
for 80 Mc.	DC Grid-No.3 Vŏltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.2 Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Power Output (Approx.) Circuit Values:	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
for 80 Mc.	DC Grid-No.3 Vŏltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.2 Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Power Output (Approx.) Circuit Values:	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
for 80 Mc.	DC Grid-No.3 Vŏltage®	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
	DC Grid-No.3 Vŏltage®	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
#.## ⊕ D DD ∰ ➡ ⊕: See next page.	DC Grid-No.3 Vŏltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Circuit Values: Grid-No.1-Circuit Resistance Useful power output is approximately 5.	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
#_## ⊕ D CO # ■ ⊕: See next page.	DC Grid-No.3 Vŏltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Circuit Values: Grid-No.1-Circuit Resistance Useful power output is approximately 5.	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
* ** •• □ CO ■ •• • See next page.	DC Grid-No.3 Vŏltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Circuit Values: Grid-No.1-Circuit Resistance Useful power output is approximately 5.	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
*, **, **, **, **, **; See next page.	DC Grid-No.3 Voltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Plate Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Circuit Values: Grid-No.1-Circuit Resistance Useful power output is approximately 5.	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts
	DC Grid-No.3 Voltage DC Grid-No.2 Voltage DC Grid-No.1 Voltage Peak RF Grid-No.1 Voltage DC Grid-No.2 Current DC Grid-No.1 Current (Approx.) Driving Power (Approx.) Power Output (Approx.) Circuit Values: Grid-No.1-Circuit Resistance Useful power output is approximately 5.	0 75 32000 -45 30000 1400 65 25 7 1.5 0.2 5.4	0 75 32000 -45 30000 1400 65 25 7 1.5 0.3 5.2	volts volts ohms volts ohms volts ma ma watts ohms

TENTATIVE DATA 1 OCTOBER 15, 1947 7 TUBE DEPARTMENT TABLE CORPORATION OF AMERICA. HARRISON, NEW JERSEY



5618 VHF POWER PENTODE

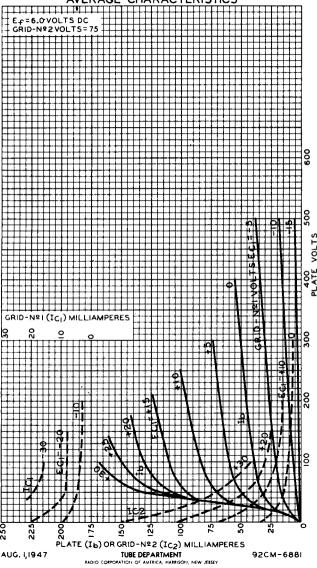
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FREQUENCY MULTIPLE	IER
Maximum ICAS ** Ratings, Absolute Value	s:
DC PLATE VOLTAGE DC GRID-No.2 (SCREEN) VOLTAGE. DC GRID-No.1 (CONTROL-GRID) VOLTAGE. DC PLATE CURRENT DC GRID-No.1 CURRENT PLATE INPUT. GRID-No.2 INPUT. PLATE DISSIPATION.	300 max. volt 125 max. volt -125 max. volt 30 max. m 3 max. m 7.5 max. watt 2 max. watt 5 max. watt
1,7,7,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	ibler Tripler 80 Mc to 80 Mc
DC Grid-No.3 Voltage [®]	300 300 volt 0 0 volt 75 75 volt 1000 41000 ohm -125 -125 volt
Peak RF Grid-No.1 Voltage DC Plate Current	0000 68000 ohm 160 160 volt 25 25 m 5.5 5.5 m 0.85 1.85 m 0.75 wat 4.2 3.4 watt
Circuit Values:	7.2
Grid-No.1-Circuit Resistance	$\cdot \left\{ egin{array}{ll} 5000 \; ext{min.} & ext{ohm} \ 100000 \; ext{max.} & ext{ohm} \end{array} ight.$
	· (100000 max. ohm
Grid—No.1-Circuit Resistance	voltage is applied between is referred to pin Mo.1, and to 1.
Grid—No.1-Circuit Resistance	voltage is applied between is referred to pin No.1, and to 11 to 12 to 15 to 16 to 1
Grid—No.1—Circuit Resistance	voltage is applied between is referred to pin No.1, and to 20 (to 2) (to 3) (pin No.4) is connected to 2) (pin No.4) is connected to 2.1
Grid—No.1—Circuit Resistance	voltage is applied between is referred to pin Mo. 1, and to 1. tvoltage is applied between 6.0.3 (pin Mo. 4) is connected to get more 7. The grid-Mo. 40.3 (pin Mo. 4) is connected to 1. trois
Grid—No.1—Circuit Resistance	voltage is applied between is referred to pin Mo.1, and to 1. tvoltage is applied between to 1. tvoltage is applied to 1. tvoltage supply with the carrier and is not the applied and to 1. tvoltage is applied between two 1. tvoltage is applied to 1. tvoltage is appli
Grid—No.1—Circuit Resistance	voltage is applied between is referred to pin No.1, and to 10.1 to 10.3 (pin No.4) is connected to 20000) or cather plate voltage shown should be the plate voltage shown should be buffer amplifier and is no itude modulation. Modulation positive peak of the audio the carrier conditions.



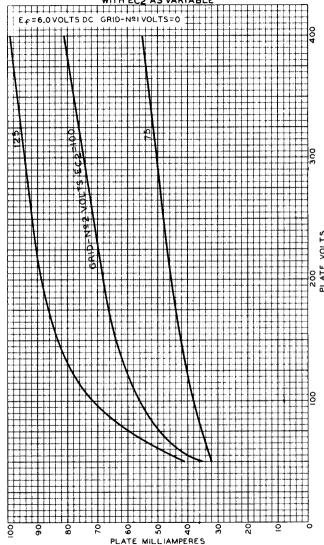






RCA 5618

AVERAGE PLATE CHARACTERISTICS
WITH ECZ AS VARIABLE



5618